

Radio Frequency Ablation (RFA) Guide

Neurotomy, Rhizolysis

Definition

Jones Radiology now offers increased support to clinicians managing recalcitrant pain centred around radiofrequency neurotomy (RFA). While Jones Radiology have been providing RFA for more than 15 years, we have recently added a variety of image guided procedures that can significantly impact on quality of life for individuals of all ages. Radiofrequency neurotomy is a procedure used to alleviate pain caused by arthritis, neuroma, degeneration or following injury.

Supported Indications

- Hip pain (obturator and femoral nerve branches).
- Knee pain (geniculate and saphenous nerves).
- Shoulder pain (suprascapular nerve).
- Arm pain (spinal nerve roots or the dorsal root ganglion (DRG), stellate ganglion).
- Abdominal pain (splanchnic plexus, coeliac plexus).
- Leg pain (spinal nerve roots or the dorsal root ganglion (DRG), sympathetic ganglia).
- Neuromas (post-operative, traumatic or inflammatory).
- Occipital headache (greater and lesser occipital nerves).
- Cervical, thoracic and lumbar facet pain.
- Sacroiliac joint pain.
- Recalcitrant plantar fasciitis.
- Pelvic pain (pudendal nerves, ganglion Impar nerves).
- Groin pain (Ilioinguinal and iliohypogastric nerve).
- Meralgia paraesthetica (lateral femoral cutaneous nerve).

The procedures are performed under CT or Ultrasound with the majority only requiring local anaesthetic injection. All patients require careful and complete workup prior to referral. The workup required will depend on both the region and the pathology. Please discuss with the radiologist.

More information can be found under Procedures at jonesradiology.com.au
RFA procedures are performed at St Andrew's Hospital and Stepney clinics.

For more information or to discuss how RFA may help your patient, please contact:

Dr Mark Sparnon | Phone. (08) 8309 2230
Email. mark.sparnon@jonesradiology.com.au

Preparation for Procedure

Notify at time of booking:

- Blood thinners
- Current illness
- Allergies

Any fasting requirements will be explained at time of booking. Driving post procedure is not recommended and we request patients are accompanied by a friend or family member.

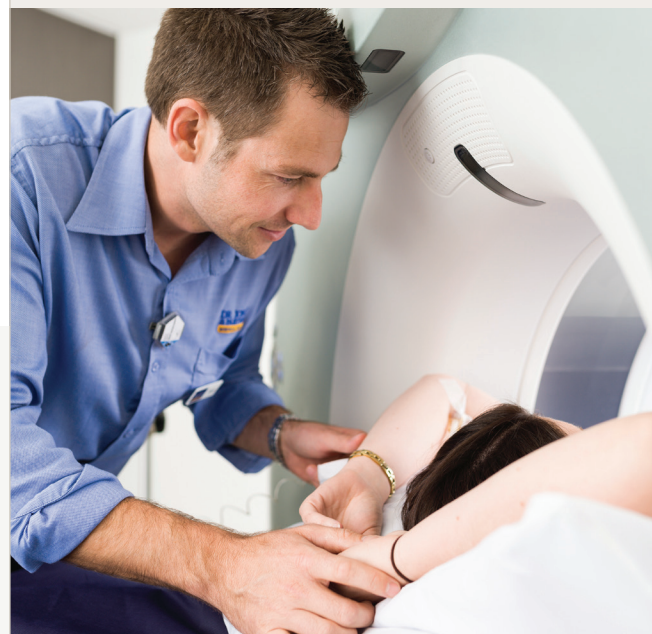
After the Procedure

Patients may feel minor discomfort in the treated area. Patients should not drive for the rest of the day. The following day patients may return to work and gradually increase activities. It may take a few weeks for pain relief to be achieved and in some patients, a repeat procedure may be required. Recovery of the nerve fibres and return of pain may occur following many months or years. Once again, a repeat procedure in this instance may be required.

Pain: Discomfort related to neurotomy can last up to 10 days but is usually well controlled with over-the-counter pain relief.

St Andrew's clinic
Phone. 1800 835 665

Stepney clinic
Phone. 8133 1950



There are two types of radio frequency treatment:

1. Radiofrequency neurotomy creates heat to the nerves of 90°C to break down nerves (radiofrequency denervation). This treatment can provide lasting relief from 6 months to 2 years.
2. Pulsed radiofrequency (neuromodulation) transfers heat to the nerves at a lower temperature of 40-45°C. It can provide long-lasting pain relief by disrupting the myelin sheath and pain fibres.

Jones Radiology offers both types of RFA treatments. Which type is used is determined by the treating radiologist based on the pathology and the region.

Medicare indications and how to refer

RFA for pain management is referred as a secondary treatment option after a positive response to steroid injection.

- Medicare rebate for GP and Specialist RFA referral applies. Private gap applies – please confirm at time of booking.
- Clinical indications include: chronic pain related to arthritis and neuromas.

Procedure

Radiofrequency ablation is performed by a radiologist experienced in interventional procedures. A diathermy pad is placed on the leg (shaving may be required). After local anaesthesia an RFA needle advanced to the target nerve under imaging guidance (ultrasound or CT).

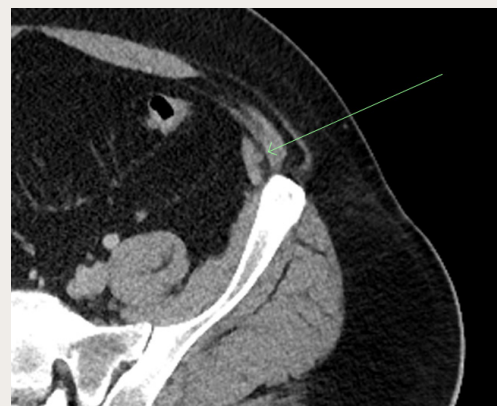
A thin probe is then passed through the needle, which is connected to a RF generator that results in heating of the probe tip. The procedure takes approximately 30 minutes however patients may be required to stay longer for observation.

Risk Factors

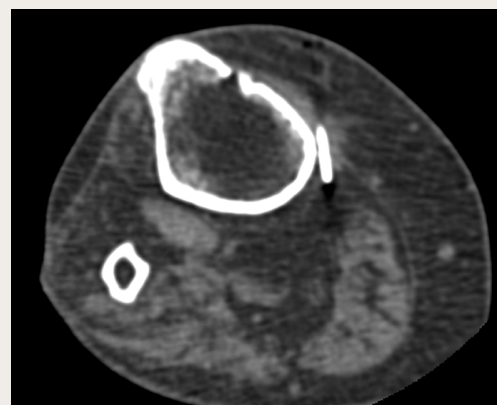
Risks of interventional procedures are rare and include:

- Infection: Usually minor however less than 0.1% can require intravenous antibiotics or hospital admission.
- Bleeding: Very rare. Increased risk for individuals with bleeding disorders or on blood thinning medication.
- Damage to adjacent structures including other nerves.
- Temporary numbness to skin. Inadvertent nerve damage.

Case Study



Ilioinguinal nerve located prior to RFA



Needle positioning for Geniculate neurotomy for recalcitrant knee pain

Evidence – Knee

Regional Anesthesia and Pain Medicine • Volume 43, Number 1, January 2018

1. Radiofrequency ablation reduced index knee pain by at least 50% at 6 months in 74.1% of treated subjects compared with 16.2% in the IAS-treated subjects.
2. At 6 months, a greater proportion of the CRFA group (40%) reported satisfactory knee function on the OKS compared with the IAS group (3%). Patient self-perceived overall health status (GPE) improved in 91% of the CRFA compared with 24% in the IAS group.